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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,891	10/28/2003	Shinya Matsumoto	14470.0017US01	7786

23552 7590 04/27/2005  
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EXAMINER

LUM VANNUCCI, LEE SIN YEE

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/695,891

Applicant(s)

MATSUMOTO ET AL.

Examiner

Lee Lum

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. An Amendment was filed 1/31/05 in which Claim 4 was also cancelled.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 9-13, 15 and 16** are rejected under 35 U.S.C. 102(b) as being anticipated by Ellsworth et al 6595538.

Ellsworth discloses a bicycle comprising

Frame (inherent),

Swing arm structure (fig 1A) being connected to the frame at pivot axis C,

The axis passing through (as implied in the figure) an aperture (this element unidentified, inherent) defined by an output chain (unidentified), and,

Having dual arms 8 connected to rear wheel 30,

Transmission 22 including

Output chain (unidentified),

Drive rotation body/sprocket, and crankshaft (both unidentified, inherent),

Plurality of gears, gear shifting mechanism and chain (all in c8, ln 54-56),

Output axis (unidentified, adjacent rear wheel axis).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**A. Claims 1-3 and 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable by Ellsworth in view of Lenoble 5976052.

Ellsworth discloses a bicycle comprising

Frame (unidentified) including pivot section (adjacent pivot axis C),

The pivot section being located within the gear-shifting chain when viewed from the side (as implied in fig 1A), and,

Comprises a single member passing through the transmission

(unidentified element passing through axis C in fig 1A),

Swing arm structure having dual arms 8 connected to rear wheel 30,

Transmission including

drive rotation body/sprocket, and crankshaft (both unidentified, inherent),

plurality of gears, gear shifting mechanism and chain (all in c8, ln 54-56), and,

output axis (unidentified, adjacent rear wheel axis),

Wherein

The swing arm structure swings about the pivot section.

The reference does not disclose a case enclosing the transmission, and gears, while Lenoble shows this feature 28. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this configuration, as shown in Lenoble, to protect the transmission from damage from environmental factors, thus increase proper operation and longevity. Cases/covers for this type of mechanism (and similar types) are obvious and well-known for this reason.

**B. Claims 5 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellsworth in view of Lenoble, and in further view of Kadaja 5346234.

The previous references do not disclose a transmission case made of resin, while Kadaja shows this element 36 in c2, ln 42-44. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature, as shown in Kadaja, to protect the transmission from the elements and environment, thus maximize proper operation and increase longevity of the mechanism. This material is known to be durable and lightweight.

4. RESPONSE TO REMARKS

Upon reconsideration, Examiner has provided new rejections employing Ellsworth, etc., and apologizes for the inconvenience. Ellsworth discloses most of the recited elements, as discussed above.

5. The prior art made of record, and not relied upon, is considered pertinent to the disclosure: Sinclair 6131934.

6. Communication with USPTO/Examiner

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272-6649, M-F, 9-5. If attempts to reach the examiner are unsuccessful, her supervisor, Ms. Lesley Morris is at 571 272-6651.

Our fax number is 703 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications: private PAIR only, for published applications: private or public PAIR. For more information re PAIR: <http://pair-direct.uspto.gov>. Questions re private PAIR: contact the Electronic Business Center (EBC) at 866 217-9197.

Ms. Lee S. Lum  
Examiner  
4/12/05

